EASTSIDE PREPARATORY SCHOOL SCIENCE + GYM BUILDING



City of Kirkland Design Review Design Response Conference August 2014

PUBLIC47ARCHITECTS

PROJECT DESCRIPTION

EASTSIDE PREPARATORY SCHOOL - SCIENCE + GYM BUILDING

City of Kirkland Design Review: Design Response Conference August 2014

The proposed project is a new education building for Eastside Preparatory School.

The building includes educational spaces for their upper school (science labs, classrooms, digitial fabrication, and media arts), a multipurpose amphitheater, and a gymnasium / fitness facility with locker rooms. Teacher and independent learning spaces are also integrated into the facility.

The new facility intends to stimulate the student's curiosity and provide opportunities to explore, create, imagine, and invent.

Zoning Summary

Address 10624 & 10626 NE 37th Circle

Kirkland, WA 98033

(Buildings 19 & 20)

Site Area 9,731 SF
Zoning YBD 3 - Commercial

Height Limit 60 feet

DEVELOPMENT OBJECTIVES

Academics: High-Quality Learning Environment

Project provides opportunity to support a stimulating and supportive learning environment.

Eastside Preparatory School maintains a school culture that focuses on the student's experience – students are the most successful when they feel known, accepted, and challenged by their community of peers and faculty.

- Commons: Circulation, Learning, and Faculty spaces are integrated. Provides space for independent student project teams to collaborate.
- Amphitheater: Multifunctional space provides a venue for social and learning opportunities, such as presentations, robotics competitions, study groups, and display of student work and projects.
- · Makers Lab: studio for rapid prototyping and digital fabrication
- Science Lab: new state-of-the-art science labs to support the STEM curriculum.











Organization: Creative integration of a mixed-program

Project combines dissimilar programs together into a cohesive and functional building.

There is an opportunity to provide the school with a variety of needed spaces, including an indoor gymnasium on campus for the young school. Although it is unconventional to combine classrooms and labs with a gymnasium, it is imperative given the school's limited ability to expand the campus within the business park. The building is designed so that each can function as intended while being within the same structure.

The school does not currently have a gym, and students have to practice at gyms off campus.

- · Provides a dedicated gymnasium for the evolving school.
- Gymnasium creates a venue for various functions, from physical educaiton classes to athletic events to science fairs and school dances.









Campus: Invigorate Pedestrian Character on Campus

Improve quality and functionality of pedestrian-oriented school campus and establish precedent for future development.

The school campus includes five buildings, and the existing connections between buildings are are utilitarian, as it was originally a business park with unrelated users. The plaza outside the Student Commons has become the center of campus, and the design for the new project strives to connect, support, and strengthen the central pedestrian areas.

- Connect and improve the pedestrian connections within the campus system.
- Create an exterior amphitheater that links the upper Commons plaza to the new building entry, and continues as an interior amphitheater within the new building.
- Create desirable exterior spaces that offer varied places for students to hang, sit, study, relax, learn, eat, and more.











VICINITY MAP



LEGEND

Project Si

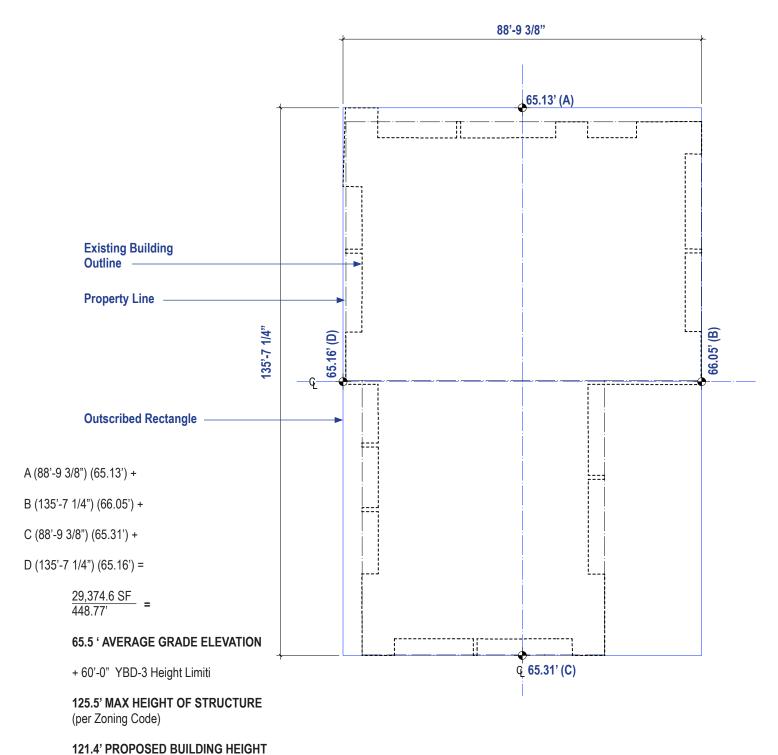
EPS Campus Boundary

Tree Canopy / Green Space

VICINITY MAP



HEIGHT CALCULATION [AVERAGE BUILDING ELEVATION DIAGRAM]



LOT COVERAGE CALCULATION

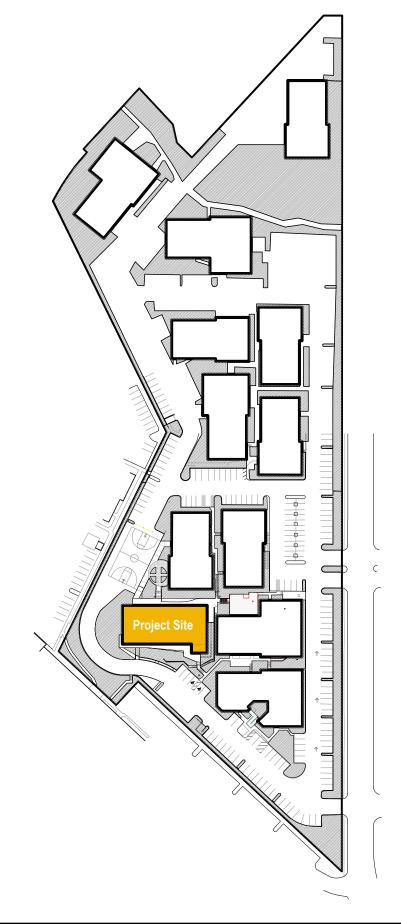
Linbrook Office Park

383,713 sf Total Lot Area

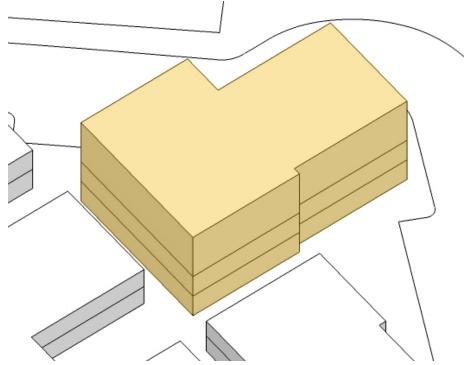
108,701 sf Pervious Area (hatched)

275,012 sf Built / Impervious Area

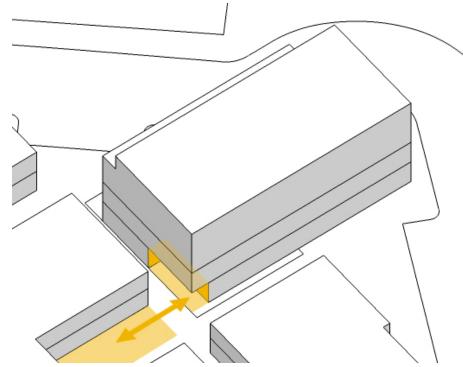
71.6% LOT COVERAGE



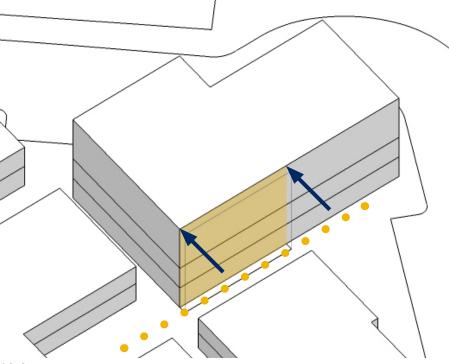
ALTERNATIVE 3 - FORMAL DEVELOPMENT CONCEPTUAL DESIGN CONFERENCE - 06.16.2014



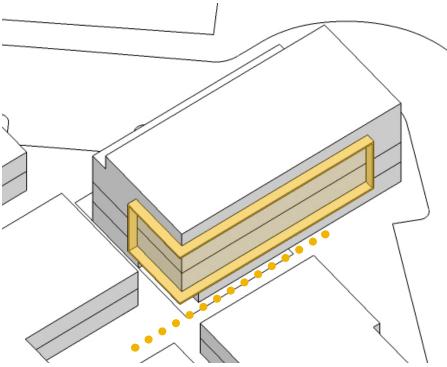
01 **Zoning Envelope**Massing begins with the volume of the zoning envelope. Modifications respond directly to the limitations of the project program and the campus site characteristics.



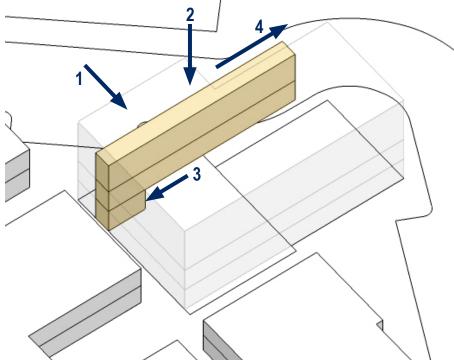
04 Building Entry
Recess primary entrance at north building corner to create direct connection to existing Student Commons building and central plaza.



02 **Campus Walkway**Massing steps back to create a generous walkway for the pedestrian-oriented campus interior.
The step back also responds to fire separation code requirements, creating a distance from the adjacent building which will limit blank wall in the shaded area.

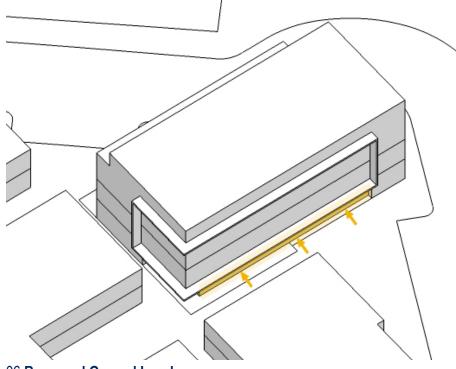


05 Covered Walkway/Building Scale
Provide a continuous awning element to create weather protection for the walkway.
Awning element visually reduces the perceived height of the building and divides the facade into separate sections.



03 Reduced Circulation/Commons

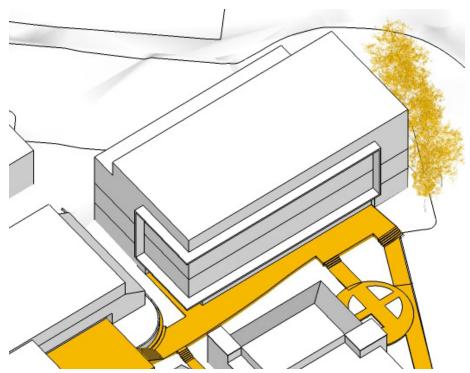
- 1 Reduce area requirement for Commons.
- 3 Restrict footprint to create exterior terrace.
- 2 Lower height of Circulation/Commons bar.
- 4 Extend at classrooms, gymnasium, and mezzanine.



06 Recessed Ground Level

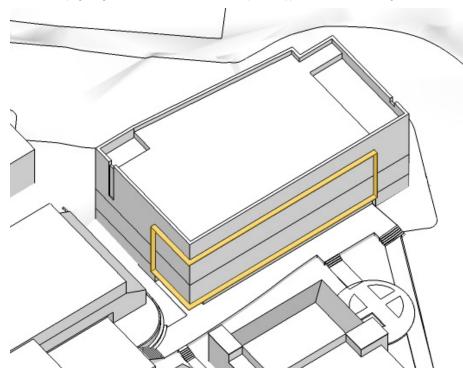
Ground level steps back to create a wider covered pedestrian walkway along the building facade within the campus interior.

ALTERNATIVE 3 - FORMAL DEVELOPMENT DESIGN RESPONSE CONFERENCE - AUGUST 2014



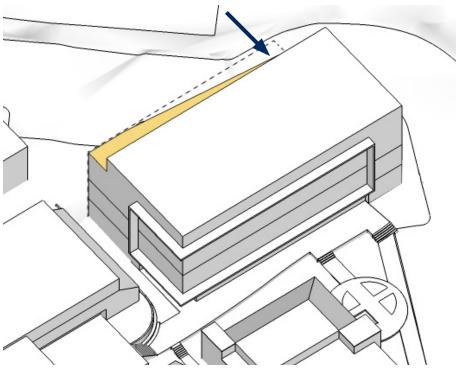
07 Campus Walkway

The building responds to campus layout and circulation. A generous walkway is created to connect the Student Commons to the outdoor play court, the two main exterior spaces on campus. Utilize landscaping along the south and west elevations to help buffer apparent scale of the building.

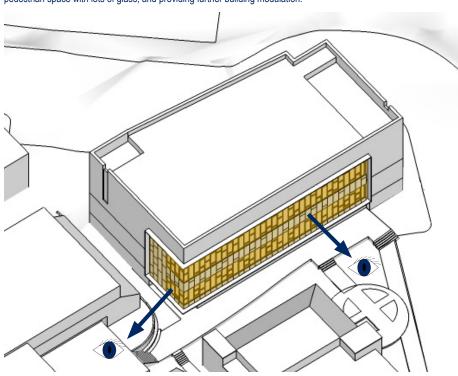


10 **Building Scale**

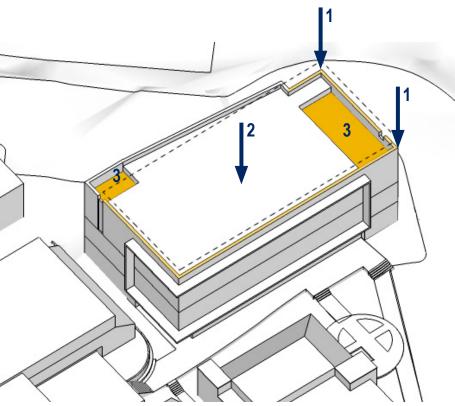
The vertical fins and eyebrows are reduced in scale from Conceptual Design, but provide articulation, vertical modulation and scaling qualities from pedestrian experience, and weather protection.



08 **Vertical Circulation and Gym Access**South gym access is is folded, providing building articulation and modulation, while accommodating vertical circulation, gym access at the upper floors. The mass is carved at the lower two floors creating a south-facing, weather-protected pedestrian space with lots of glass, and providing further building modulation.

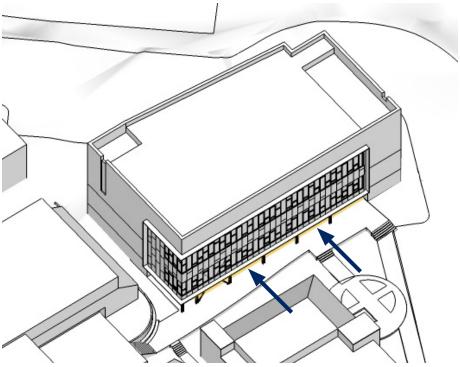


11 Architectural Response to Exterior Spaces
Expansive glazing with a playful composition of mullions provides abundant daylight to the gym and classrooms, visual connections between the program and exterior spaces, and creates a significant articulated, visual accent.



09 Reduced Height, Parapet, Mechanical Wells 1 Reduce building height to 4' below the height limit to reduce building mass, bulk and scale. 2 Flat roof with parapet.

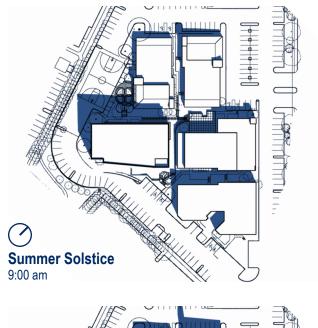
- 3 Mechanical wells: parapets screen rooftop mechanical equipment as required by zoning code.

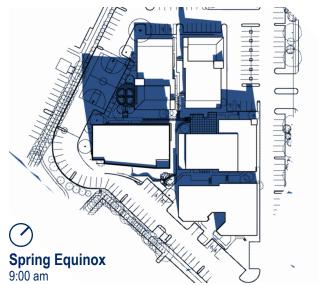


12 Recessed Ground Level

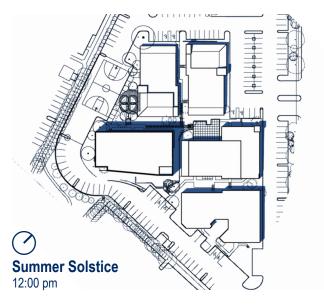
Ground level recess along walk way is increased to create a covered walkway – a contemporary "arcade" along the building that connects the Commons to the playcourt.

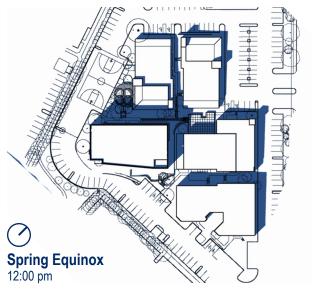
SHADOW STUDY





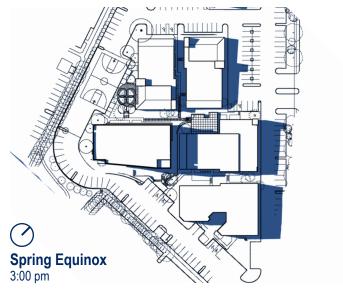


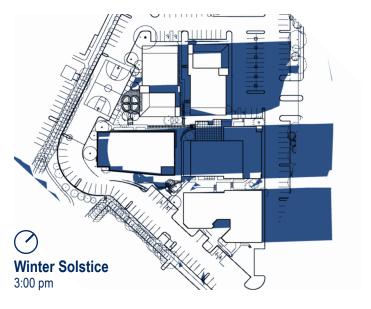




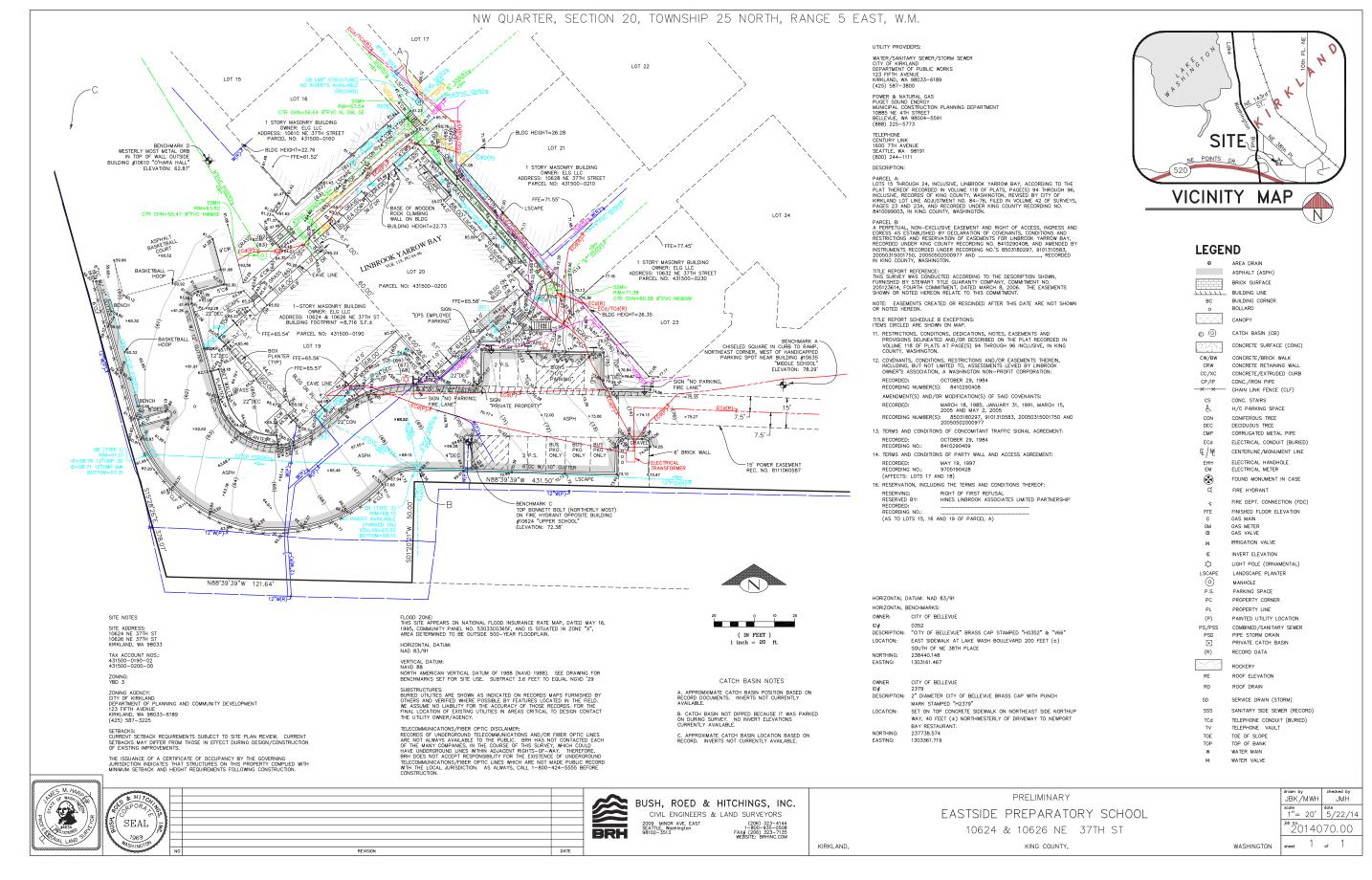








SURVEY



CAMPUS PLAN

Linbrook Office Park

Setbacks and Yards: None required

Existing Structures

This project will replace an existing Eastside Prep classroom building.

Pedestrian-Oriented Streets

There are no pedestrian-oriented streets or major pedestrian sidewalks related to this project.

The project, however, attempts to reinforce and strengthen the campus connections, improving the pedestrian experience from the Commons to the outdoor playcourt. The pathway is widened and weather protection provided along the length of the path. The first floor is recessed along the northern path and the main building entry with expansive use of glass to improve the pedestrian experience. On the southeastern side, an outdoor plaza is created with weather and sun shading provided by the overhang of the upper gym floors.

The project also increases the amount of landscaping, reducing the fire access lane, and providing a generous landscape area to the west of the building. A new accessible ramp will be provided from the southeast parking area to the building.

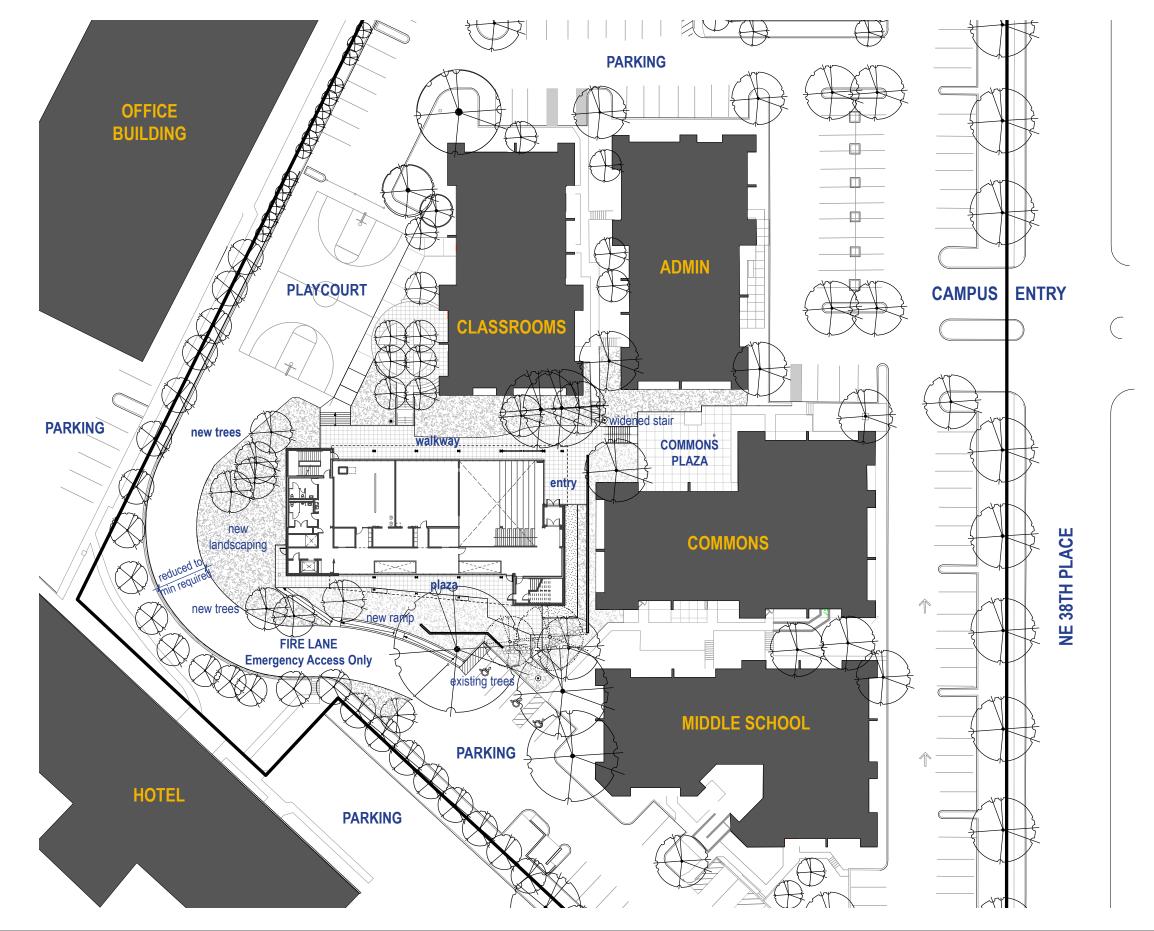
Exterior Lighting

The exterior lighting will consist of a combination of site bollards, light poles and building-mounted lights at each entry, and at the soffits along the north pathway and the south covered plaza. There will also be sconces along the northeast secondary pathway.

In addition, when the building is used in the evening, the building itself will help light the surrounding pedestrian areas as the significant portions of glazing are along the north and south pedestrian walkways.

Parking

The applicant has submitted parking and traffic information as required by the City Transportation Engineer and as required by the SEPA process.



LANDSCAPE PLAN

Existing Landscape Features

The existing site has a few trees that are immediately adjacent to the building that will be removed and too close to the new projec to retain.

The new building will be located further north than the existing buildings. This gives more breathing room to the existing retaining walls and rockery to the southeast of the building. This will allow a more graceful transition of grades to the building, and a better buffer to the parking and fire access area.

Tree Plan

A tree plan prepared by an independent arborist in accordance with Kirkland Zoning Code Section 95.30 has been provided as a separate attached document.

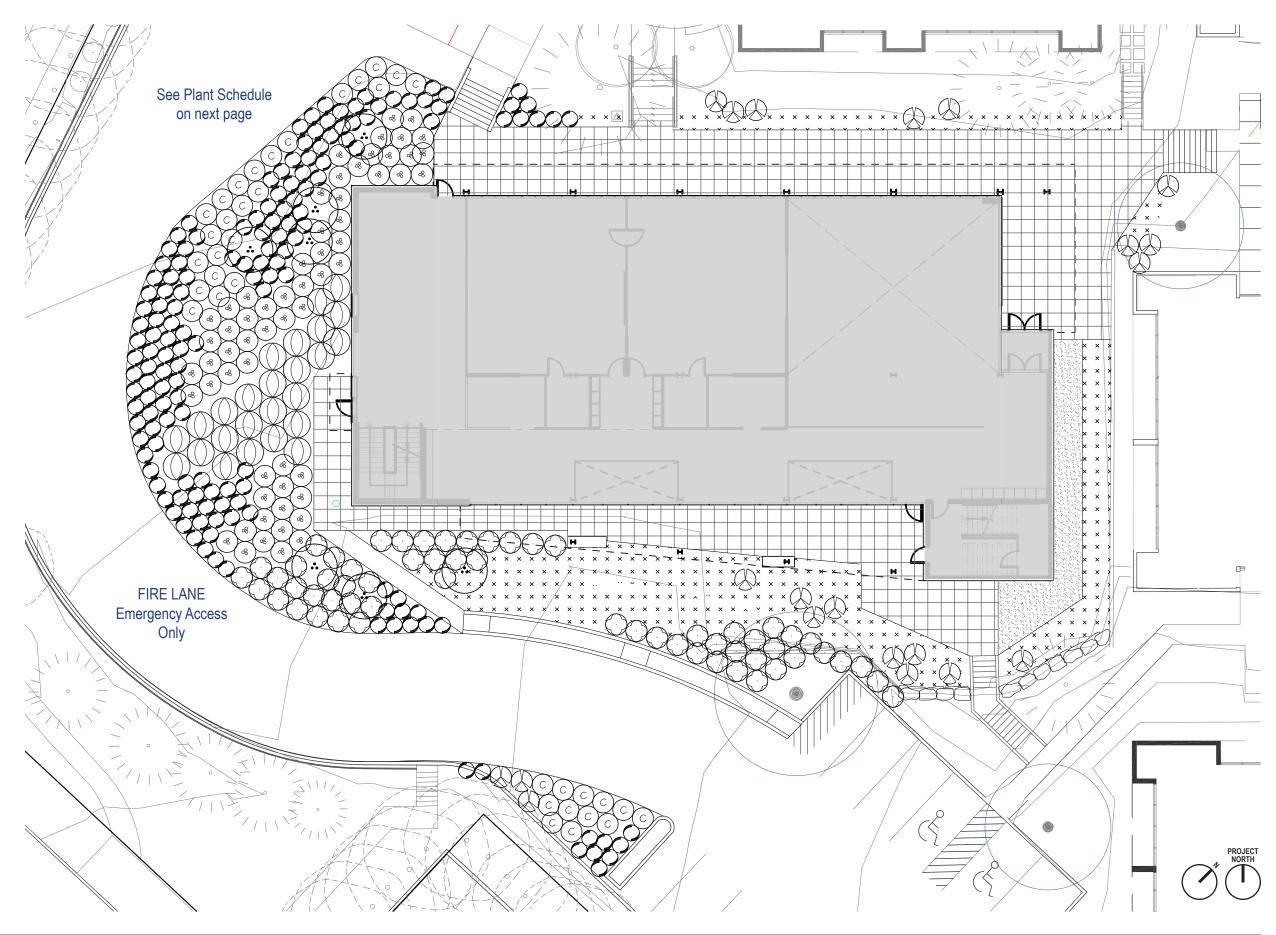
The new, extended landscape area to the project west will include several new trees and extensive draught-tolerant planting, reduce the amount of pavement, and will provide a soft foreground to the west elevation which is the side of the building that houses most of the service spaces of the building. (As shown in the floor plans, their location is governed by the gym layout. This layout also helps activate the pedestrian path to the north of the building with classrooms and gym oriented onto this space. The commons overlooks the south plaza and has access to the southern light. The west side is the least active portion of the campus.)

The design does not incorporate ivy into the landscape plan.

Plant schedule is located on the next page. Note there are several 'Vanessa' trees to the southwest and northwest that will be larger than indicated in this plan. They will spread 10-20 feet wide and grow to height of 15-40 feet.

Coordinated Pedestrian Access

The two main existing outdoor active spaces on campus serve as landscape focal point and anchor each end of an improved major internal pedestrian walkway along the north elevation of the proposed Science building.



PLANT SCHEDULE

PLANT SCHEDULE			
KEY	QTY	SPECIES	SIZE # NOTES
	TREE	<u>"5</u>	
(<u>.</u>	7	PARROTIA PERSICA 'VANESSA' VANESSA PERSIAN IRONWOOD	I O FT HT MULTI-TRUNK
	SHRUBS & GROUND COVERS		
	25	CEANOTHUS 'VICTORIA' VICTORIA CALIFORNIA LILAC	5 GALLON
	60	CHOISYA TERNATA 'SUNDANCE'	5 GALLON
(%)		SUNDANCE MEXICAN ORANGE	
(c)	36		
		SPREADING WILLOW LEAF COTONEAS	ER
	60	LONICERA PILEATA	5 GALLON
		PRIVET HONEYSUCKLE	
\bigcirc	21	MAHONIA MEDIA 'WINTER SUN' 5	GALLON
\Diamond		WINTER SUN MAHONIA	
	158	SPIRAEA JAPONICA 'WALBUMA'	2 GALLON
		MAGIC CARPET SPIRAEA	

NOTES

ALL SHRUBS AND GROUND COVERS ARE LOW WATER USE ACCORDING TO WSU LOW WATER USE PLANT LIST

2. VERIFY LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES AND PROTECT DURING PLANTING.

GROUND COVER AREAS 305 GAULTHERIA SHALLON, SALAL

POLYSTICUM MUNITUM, SWORD FERN 1/3-2/3 MIX

- PROTECT EXISTING TREES TO REMAIN.

 OWNER'S REPRESENTATIVE TO INSPECT SOIL PREPARATION PRIOR
 TO PLANTING. SOIL PREP TO INCLUDE LOOSENING EXISTING SOIL
 TO DEPTH OF 18 INCHES, PLACING 4 INCHES OF COMPOST OVER
 LOOSENED EXISTING SOIL, INCORPORATING COMPOST TO DEPTH
 OF 8 INCHES. MULCH WITH 2 INCHES OF ORGANIC MULCH AFTER
- 4. OWNER'S REPRESENTATIVE TO INSPECT PLANT MATERIAL AND LAYOUT OF PLANTS PRIOR TO COMMENCING PLANTING. ASSIST OWNER'S REPRESENTATIVE IN FIELD MODIFICATION OF PLANTING LAYOUT PRIOR TO PLANTING.
- 5. NO SPECIES OR SIZE SUBSTITUTIONS WILL BE ACCEPTABLE WITHOUT PRIOR APPROVAL BY OWNER'S REPRESENTATIVE.
- 6. PROVIDE AUTOMATIC IRRIGATION FOR ALL NEW PLANTING AREAS.



Polysticum munitum 3 ft height \$ spread Shade or shade, low water use



Gaultheria shallon 3' ht and spread Sun or shade, low water use



Cotoneaste salicifolius 'Repens'

I ft height, to 8' spread

Sun or shade, low water use



Lonicers pileata, Privet Honeysuckle 2' tall x 8' wide Sun or shade, Low water use

Mahonia media 'Winter Sun'

7 ft height, 4' spread, low water use

Sun or shade



Spiraea japonica 'Walbuma' 4' ht and spread Sun to light shade, Low water use

Ceanothus 'Victoria'
6 foot ht x 4 foot wide



Parrotia persica 'Vanessa'





Choisya ternata 'Sundance'
6' ht and spread
Sun or part sun
Low water use



I GALLON EACH

30 INCHS O.C.

BASEMENT PLAN

5435 GSF TOTAL

Amphitheater / Multi-Purpose

The amphitheater steps down from the First Floor into the Basement and provides seating for multiple functions, from casual studying or eating lunches to organized classroom activities and presentations. In the basement, at the bottom of the amphitheater, is an area for robotics events and competitions.

Project Area

800 GSF

This is a flexible space for hands-on project space - whether tinkering, conceiving or displaying project work.

Information Technology Staff 300 GSF

> Open workstations and storage for the school's IT staff.

Physics Laboratory

670 GSF

A general classroom that has access to the digital fabrication lab as well as the amphitheater where robotic competitions can be held.

Fabrication Laboratory 360 GSF

The fab lab will be the center of the school's state-of-the-art digital fabrication curriculum. Equipment will include a CNC router and laser cutter.

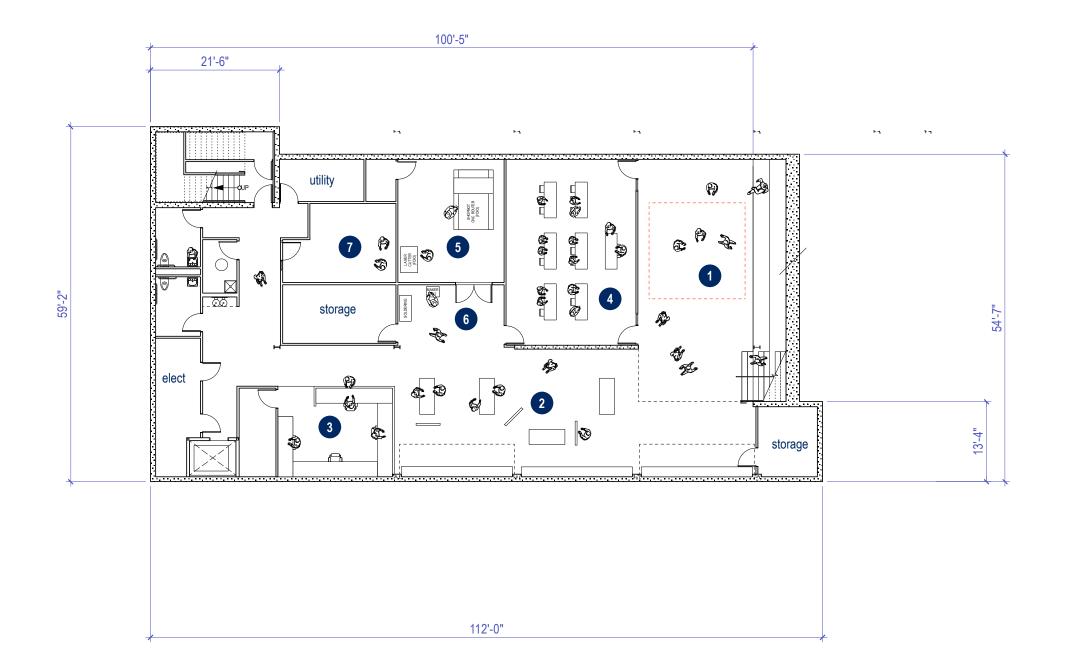
3D Printing Area

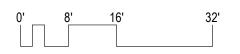
175 GSF

3D printers and a soldering station will occupy this alcove. The equipment will have direct access to the project area, phyisc lab and digital fabrication lab.

Green Screen Laboratory

This area of the basement -- remote from any daylight -- will be used by the school's visual arts program for activities such as video production work.







FIRST FLOOR PLAN

5845 GSF TOTAL

Amphitheater / Multi-Purpose 1250 GSF

The amphitheater steps down from the First Floor into the Basement and provides seating for multiple functions, from casual studying or eating lunches to organized classroom activities and presentations. In the basement, at the bottom of the amphitheater, is an area for robotics events and competitions.

Biology + Chemistry Labs
1805 GSF

State-of-the-art science labs with a fume hood, wet labs and lecture areas.

3 Staff Offices

185 GSF

A combination of a private flexible meeting space and flexible, open work pods.

4 Commons

275 GSF

Open, flexible seating area for students to use informally between classes individually or as part of project teams. Since they occupy buildings conceived as office buildings, the campus in general lacks these types of spaces. The commons has generous windows to to the south east and access to a covered plaza area.

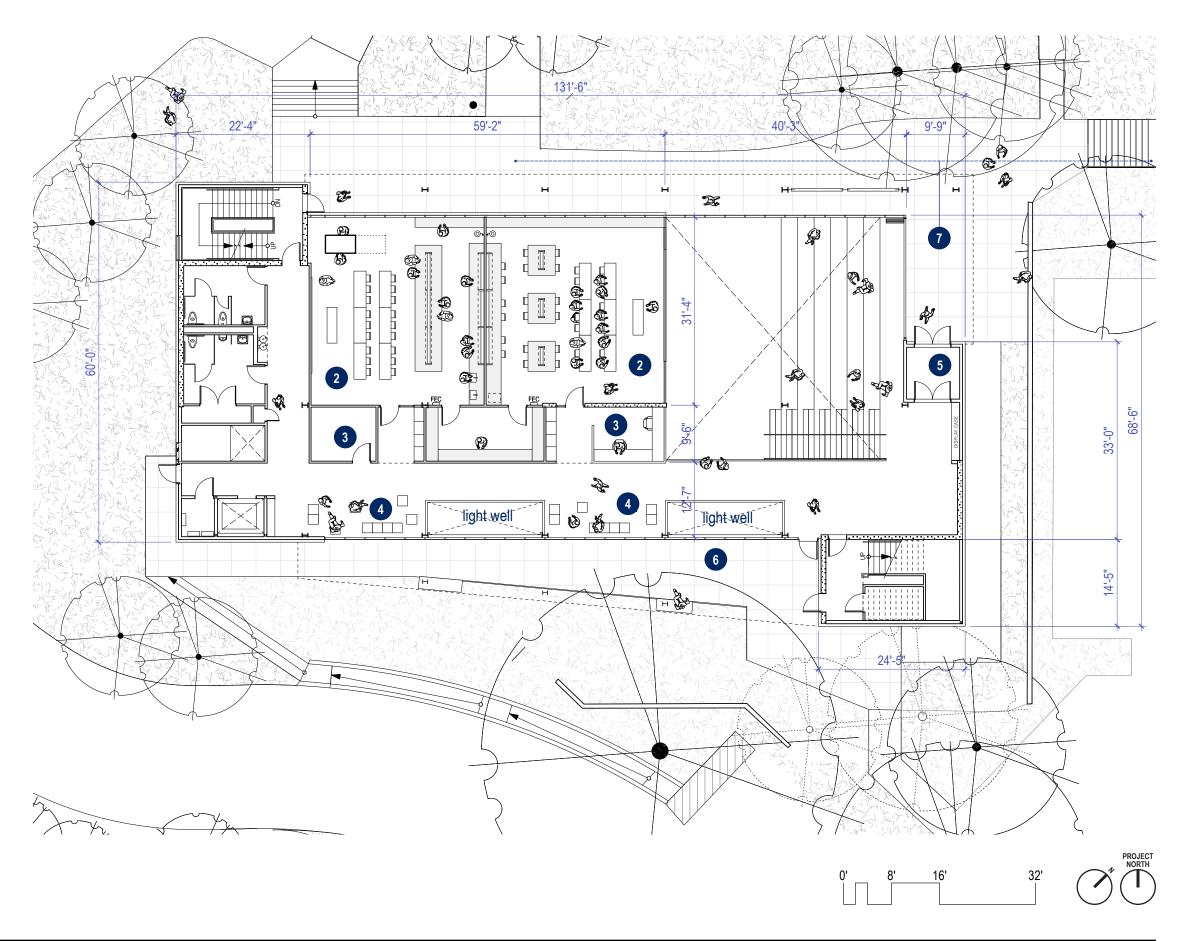
5 Main Entry

The main entry connects the building to the Commons, the heart of the campus.

6 Plaza

A covered, outdoor area with southeast exposure. The building above provides some weather protection and sun shading to the commons.

Building OrientationInterior spaces and building entry are oriented to plazas and major internal pedestrian walkway.



SECOND FLOOR PLAN

7420 GSF TOTAL

1 General Classrooms

3880 GSF

Five general classrooms with two operable partitions to provide the school with programming flexibility. These classrooms will have access to diffuse northern light during the school day.

2 Commons

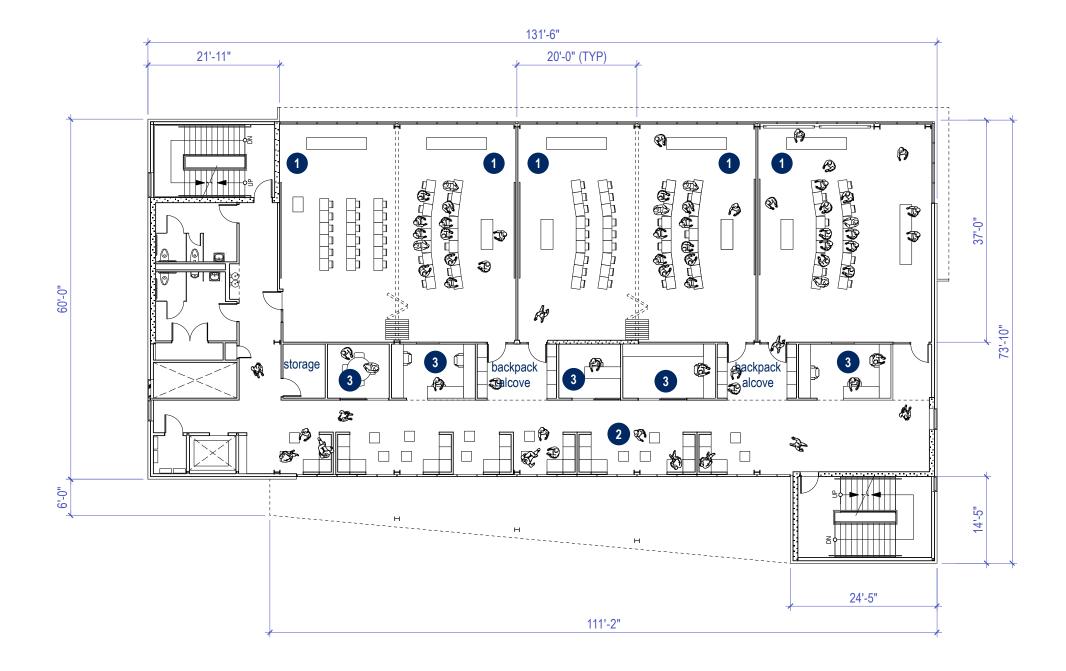
1980 GSF

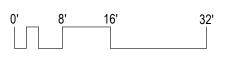
Open, flexible seating area for students to use informally between classes individually or as part of project teams. Since they occupy buildings conceived as office buildings, the campus in general lacks these types of spaces. The commons has generous windows to to the south east and access to a covered plaza area.

3 Staff Offices

590 GSF

A combination of a private flexible meeting space, private offices, and flexible, open work pods.







THIRD FLOOR PLAN

8290 GSF TOTAL

1 Gymnasium

6045 GSF
An efficient, high school gym with a wood sport floor will be used for physical education classes, sporting events such as basketball and volleyball, and school dances. The school currently has to rent gym space

2 Gym Access 885 GSF

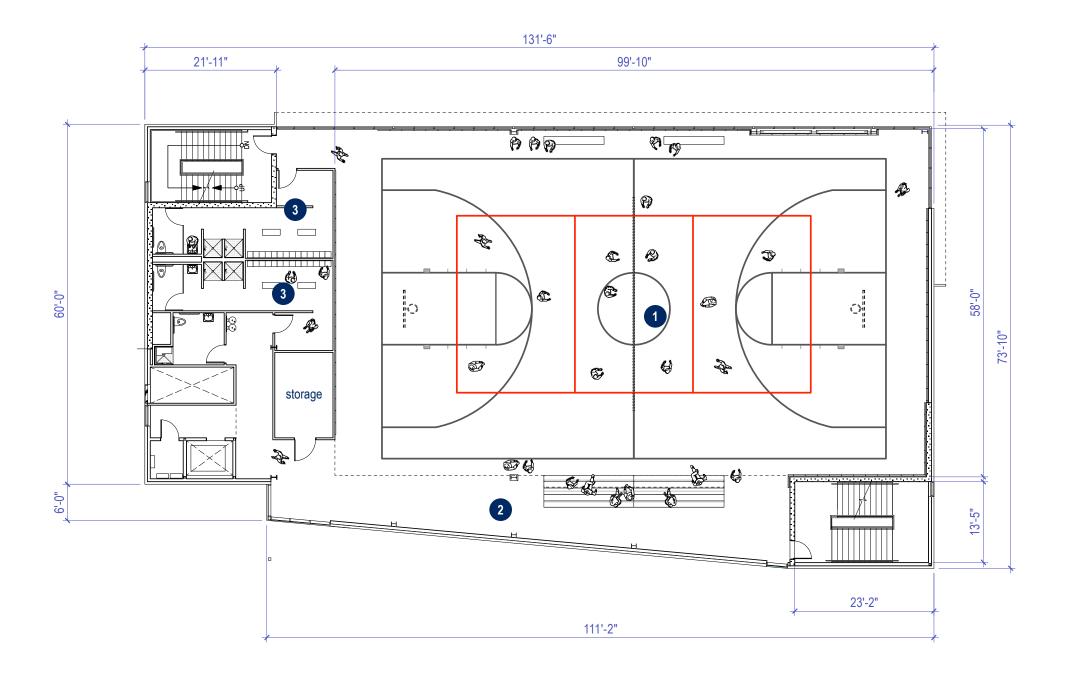
off campus.

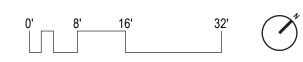
This extension of the gym provides access to the locker rooms and a small area for spectators.

3 Locker Rooms

735 GSF

The gym will include a family / unisex restroom and two locker rooms with showers.





MEZZANINE FLOOR PLAN

2395 GSF TOTAL

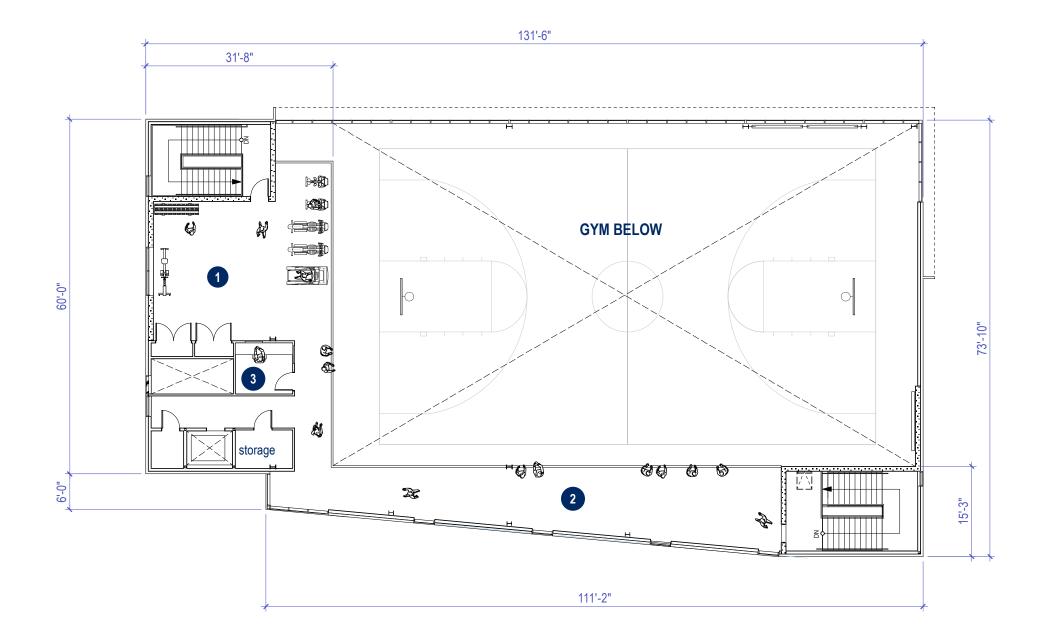
1 Fitness Room 770 GSF

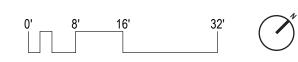
On the mezzanine, the northwest corner will be used for a fitness area that overlooks the gym and has territorial views to the west. The area will include general free weights, treadmills, elipticals and stationary bikes.

2 Mezzanine 885 GSF

The mezzanine to the south will not be available as an extension of the fitness area and as an overlook to the gymnasium below.

3 Athletic Director Office 85 GSF



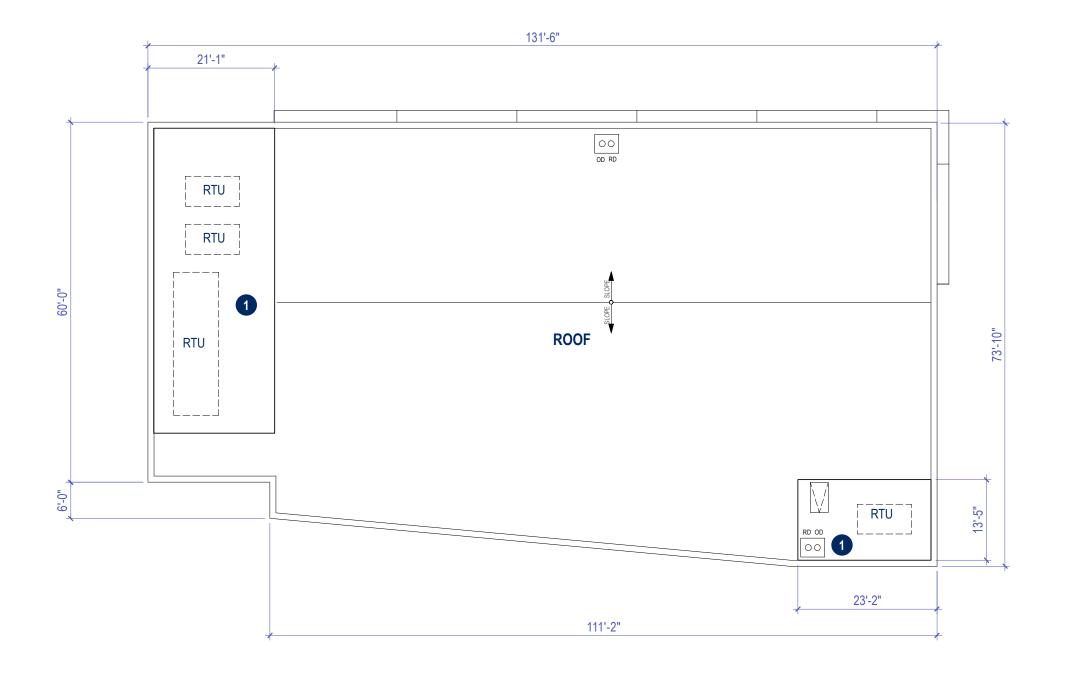


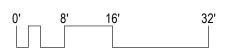
ROOF PLAN



Mechanical Well

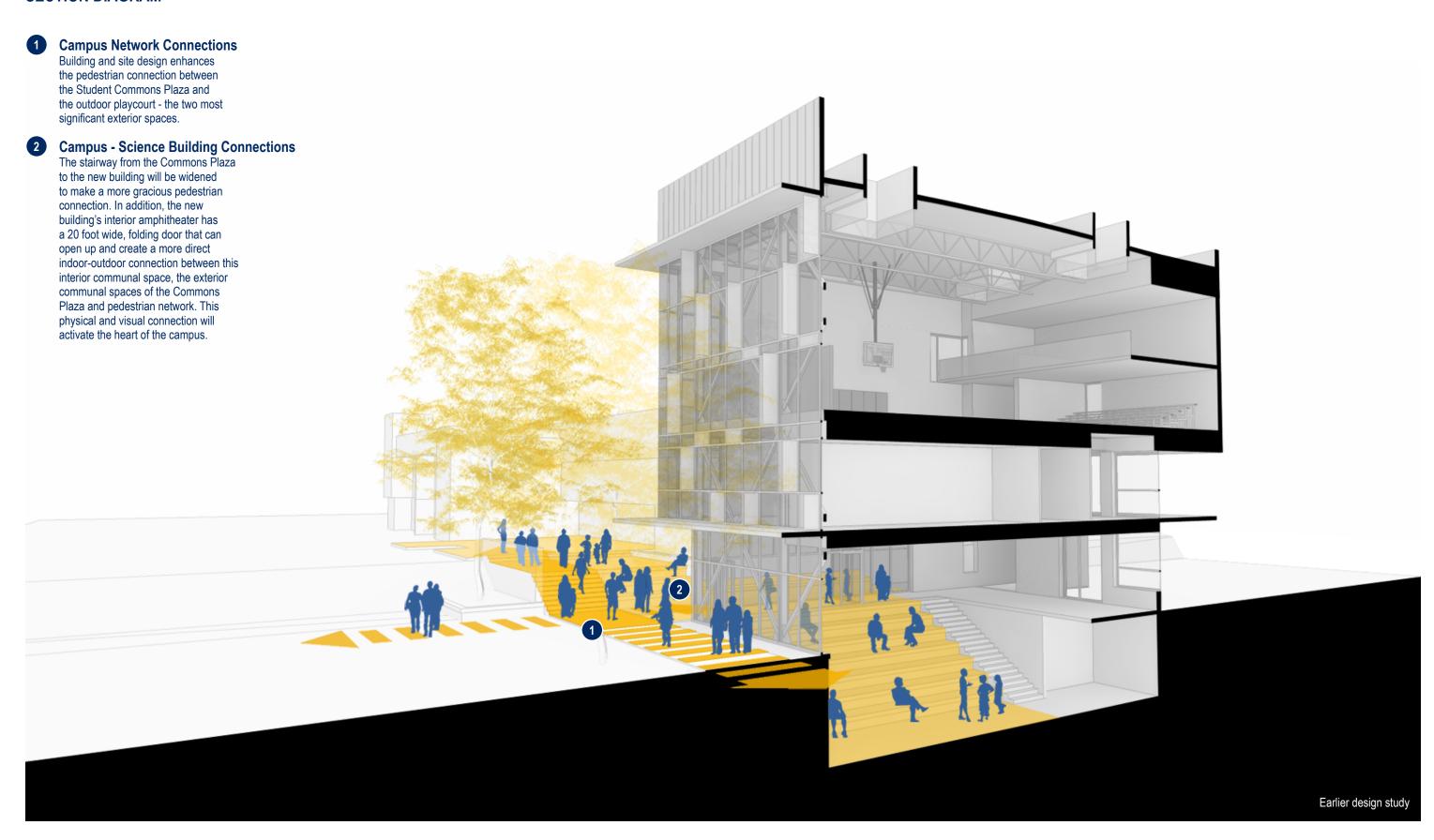
To provide screening to the rooftop mechanical equipment, mechanical wells are provided. These recessed roof areas allow the parapets to screen the equipment without requiring an increase in the building's hieght, bulk and scale.



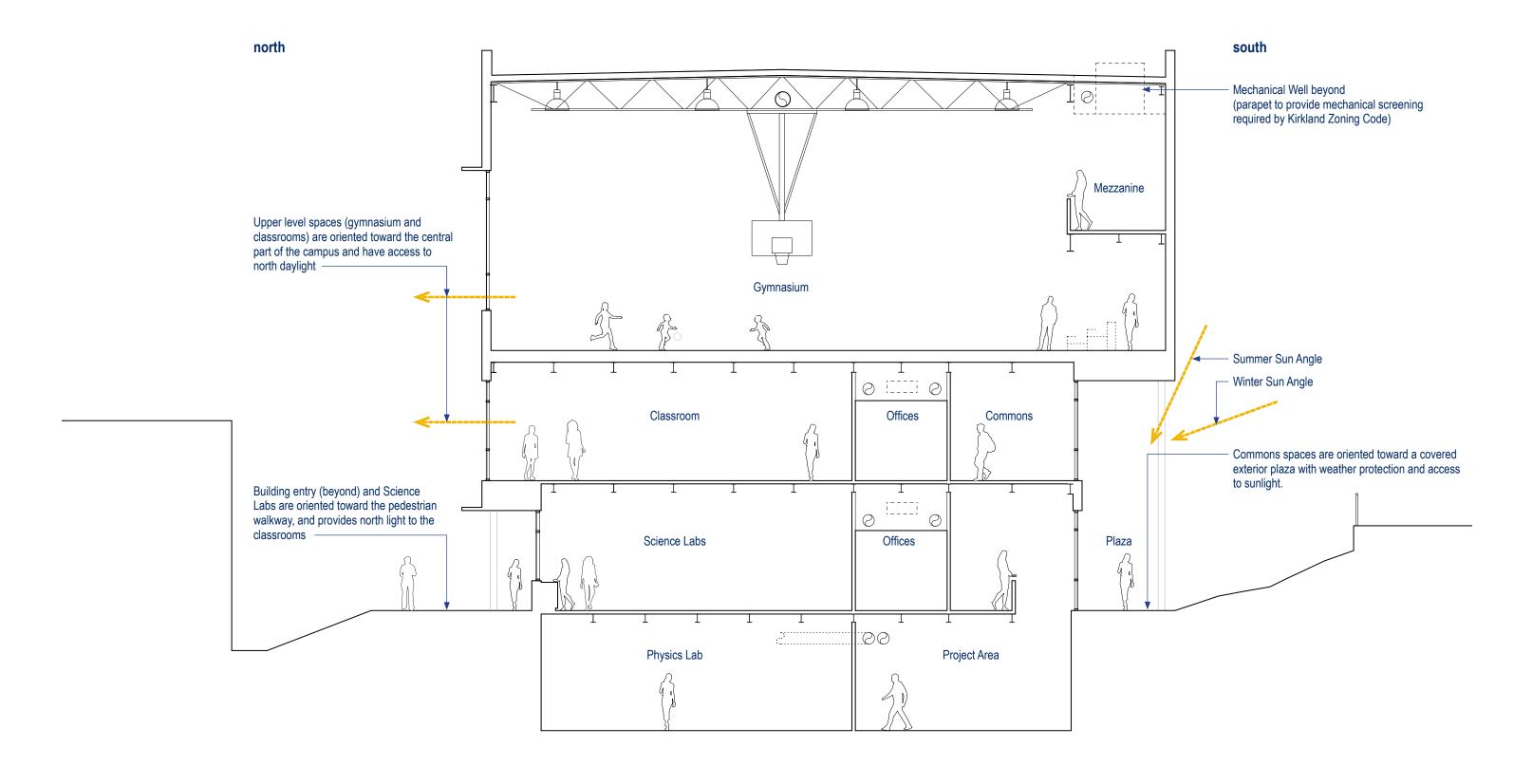




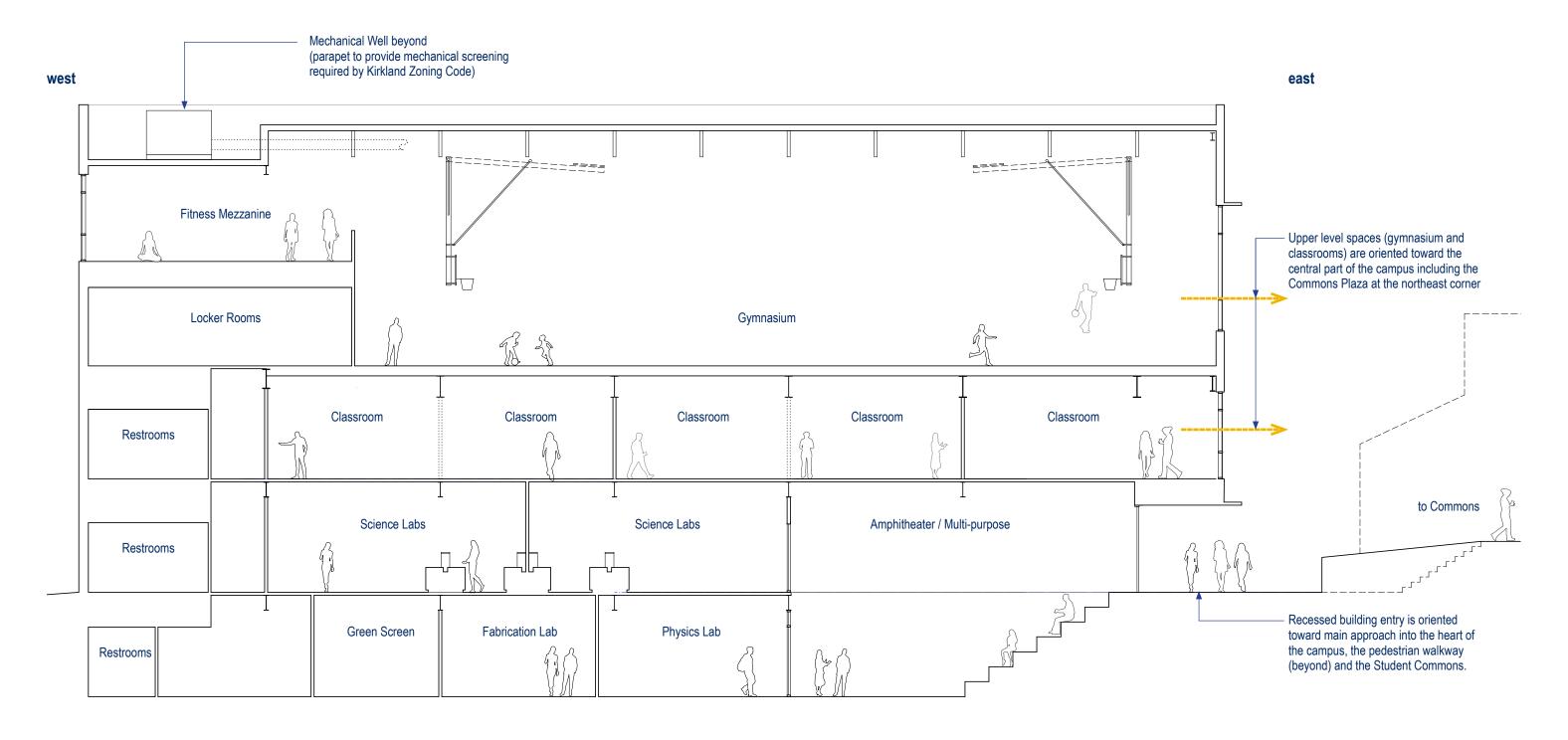
SECTION DIAGRAM



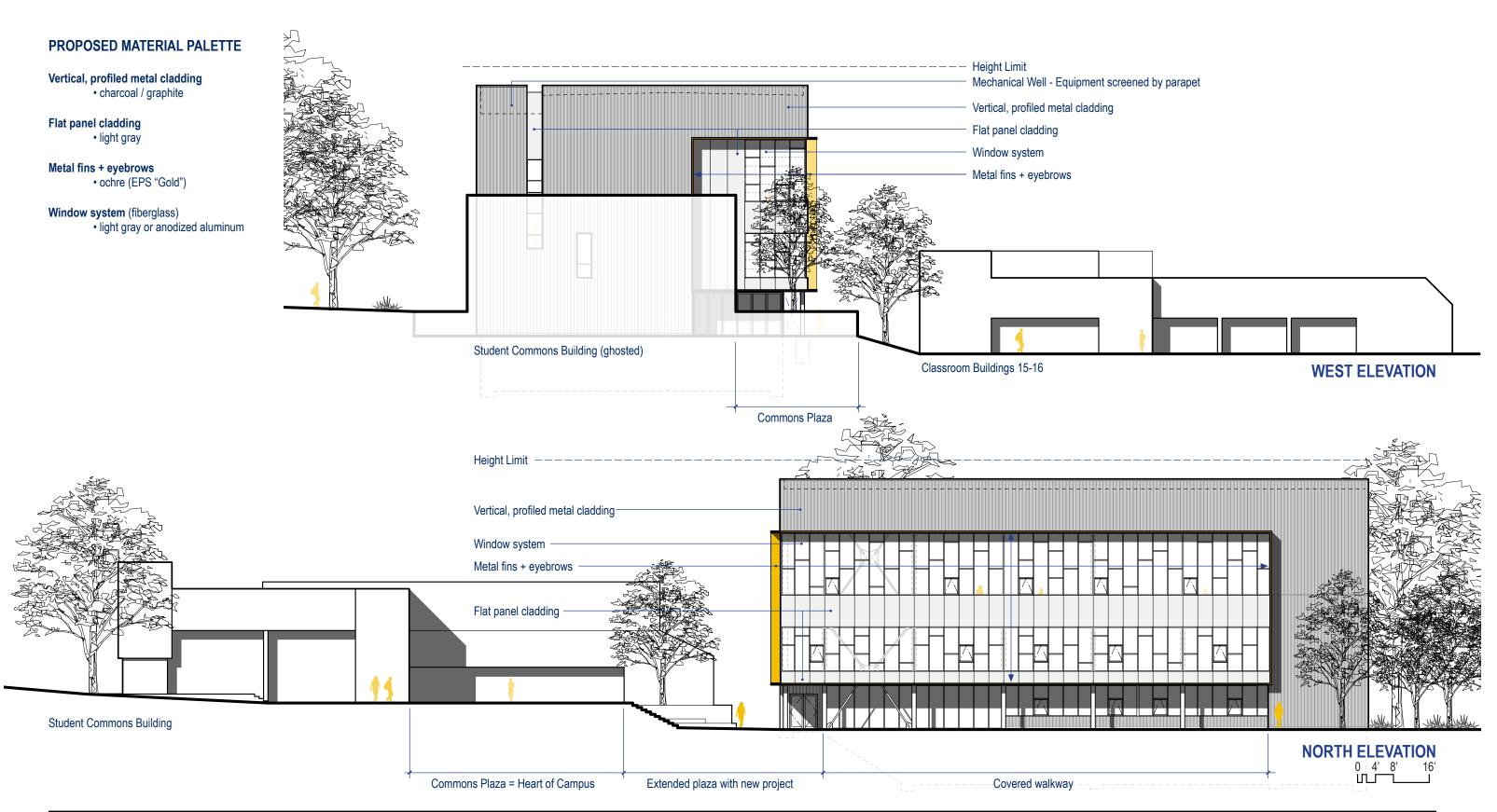
BUILDING SECTION



BUILDING SECTION



BUILDING ELEVATIONS



BUILDING ELEVATIONS



PERSPECTIVE View from campus entrance

Commons Plaza

The project enhances the connection to the Student Commons and plaza, renovated in 2012 and the heart of the campus. The Commons includes the school theater and cafeteria.

Proposed EPS Science Building
 The proposed building spatially and visually responds to and opens up to the center of campus and toward the existing commons plaza.

EPS Parking Lot and Campus Entry
 Existing campus parking area off the main entrance into the campus.



PERSPECTIVE

View from campus Commons Plaza

Building Articulation

Articulation of awning element serves as horizontal modulation and an accent element, creates visual interest to building composition.

Mechanical Screening

Parapet serves to screen mechanical equipment on the roof.

Reduced Height and Scale
The height of the building was reduced by 4 feet to reduce the apparent height, bulk and scale of the facility, given the lower context buildings.

Building Fenestration

Active interior spaces are oriented toward active exterior spaces. A playful composition of mullions provides articulation, scale and serves as a facade treatment that adds visual interest to the building. Glazing turns the corner to direct

the building toward the existing commons plaza.

Pedestrian Enhancements

A widened walkway with overhead weather protection enhances the connection between the Commons plaza and the outdoor playcourt beyond.



PERSPECTIVE

View from existing playcourt area

Building Fenestration -

Active interior spaces are oriented toward active exterior spaces.

A playful composition of mullions provides articulation, scale and serves as a facade treatment that adds visual interest to the building.

- Covered Walkway

Ground floor is recessed to create a covered walkway. Pedestrians can walk along either side of the sturctural columns, creating a contemporary 'arcade' along the north elevation.

Durable Materials -

Metal siding continues along ground level as a durable building material adjacent to walkway.

Vertical Fins and Horizontal Eyebrows

Awning at ground level provides weather protection. Continuous "wrap" articulates fenestration and building 'accent' element oriented toward plazas and the pedestrian-oriented heart of campus.

Tree

Strategically placed trees add a colorful foreground to the building and help mitigate the apparent mass of the building. The trees also provide some dappled shading. The asphalt of the existing fire access lane will be reduced to the minimum required, reducing the amount of pavement.



PERSPECTIVE
View of Primary Building Entry @ NW

Improved Pedestrian Connection

Widened stair to connect the existing commons plaza to the new building, its main entrance and the indoor/outdoor amphitheater.

Commons Plaza

Recessed Entry (beyond)
The main building entry is recessed to create a gracious, covered pedestrian experience. The entry is oriented towards the main student approach from the Commons.

Covered Walkway

The ground floor is recessed to create a covered walkway with ample visibility into the amphitheater and science labs inside.

Pedestrians can walk along either side of the structural columns, creating a contemporary 'arcade' along the north elevation.



PERSPECTIVE View of South elevation

Expanded Landscaping

A new, expanded landscape area to the west of the building provides colorful, draught-tolerant plants and trees, softening the more solid side of the building mass where the building services are located internally.

Building Articulation

The building bumps out to provide interior access around the gym. The form has a subtle fold, making the form more dynamic. At the upper levels, the corner dissolves into a glass vantage point with territorial views.

Modulation of the Mass

Below the gym access, the building is carved back to create a covered exterior plaza and secondary entrance. The south-facing plaza gets dappled sunlight, while the carved mass provides integrated sun protection for the interior commons that overlook the plaza. The recessed portion of building become a focal point with expansive glass and its playfull composition of mullions.

Existing Landscaping

Mature trees to the southeast are to be retained, and provide a substantial foreground to the buildings south facade. The grade slopes up to the SE, so the main floor and plaza are recessed several feet, reducing the preceived height of the building.



PERSPECTIVE

View from southwest fire access lane

Expanded Landscaping

A new, expanded landscape area to the west of the building provides colorful, draught-tolerant plants and trees, softening the more solid side of the structure where the building services are located internally.

Facade Articulation

A composition of various claddings and louvers provide modulation and create visual interest, as seen from the back side to the west (and fire access lane.)

Building Articulation-

The building bumps out to provide interior access around the gym. The form has a subtle fold, making the form more dynamic. At the upper levels, the corner dissolves into a glass vantage point with territorial views.

Modulation of the Mass

Below the gym access, the building is carved back to create a covered exterior plaza and secondary entrance. The south-facing plaza gets dappled sunlight, while the carved mass provides integrated sun protection for the interior commons that overlook the plaza. The recessed portion of building become a focal point with expansive glass and its playfull composition of mullions.

Fire Lane

Access restricted to emergency response only





